

REMARKS

Upon entry of the amendments in this paper, claims 6 and 9-11 will be pending in the above-identified application. Claims 6 and 9 are herein amended. Claim 8 is herein cancelled. No new matter is entered. It is respectfully submitted that this paper is fully responsive to the Office action mailed on April 19, 2010.

Claim Rejections – 35 U.S.C. §112

Claims 6-11 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The examiner contends that the newly amended portion of claim 6 is unclear. Specifically, the examiner asks Applicants to clarify if the amended claim positively (structurally) requires anything different than the un-amended claim.

In response, Applicants submit to the examiner that the newly added feature is a functional limitation with respect to the ignition control means. That is, the newly added feature makes clear that the ignition control means detects both the crank angle pulse signal and reference pulse signal to determine a period of one rotation.

As such, Applicants respectfully ask that the rejection be withdrawn.

On the Merits

Claim Rejections - 35 U.S.C. §103(a)

Claims 6, 9-6, 10-6 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Publication No. 2002/0112711 to *Ohira* in view of U.S. Patent No. 5,623,912 to *Kelly*. Claims 8, 9-8 and 10-8 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Ohira* in view of *Kelly*, in view of U.S. Patent No. 6,032,649 to *Ono*.

Independent Claim 6:

Independent claim 6 recites:

An ignition timing controller, comprising:

...

wherein the respective rear end positions of all of the plurality of detection portions are located at equivalent angle intervals in the rotating direction of said rotor,

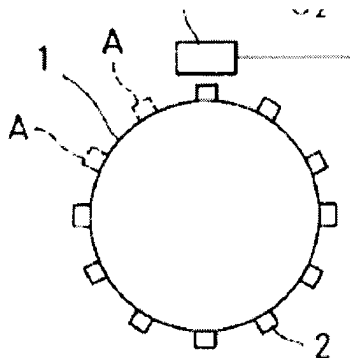
and the length from the rear end position to the front end position of said selected detection portion is different than lengths from rear end positions to front end positions of non-selected detection portions among said plurality of detection portions.

As features of claim 8 have been incorporated into claim 6, Applicants address the rejection of former claim 8 below.

The examiner acknowledges that the features recited above (formerly of claim 8) are not disclosed in *Ohira*, but instead contends that it is disclosed in *Ono*. Specifically, the examiner points to FIG. 1 of *Ono* which shows an engine control system. Rotary body 1 has convex portions 2 with two convex portions missing, "A" (shown in broken lines).

Applicants respectfully submit that *Ono* does not disclose the above recited portion of independent claim 6. That is, the rear end positions of the plurality of detection portions are not located at equivalent angle intervals. Because of the missing convex portions A, the angle intervals of the respective rear end positions are not equivalent.

Ono shows 12 convex portions (including missing portions A), which equates to a 30° angle between a rear end portion and an adjacent rear end portion. However, with the missing convex portions A, the angle between adjacent rear end portions in this area is not equivalent. That is, the angle between rear end portions in this area is 90°, not 30°. Please see the figure below, reproduced from *Ono*.



Further, applicants respectfully submit that *Ono* does not disclose "the respective rear end positions of all the detection portions are located at equivalent angle intervals in the rotating direction of said rotor, and the length from the rear end position to the front end position of said selected detection portion is different than lengths from rear end positions to front end positions of non-selected detection portions among said plurality of detection portions" in amended claim 6.

According to amended claim 6, the ignition control means instructs a power supply to an ignition coil in response to the reference pulse signal generated by the selected detected portion having the different length located immediately before the crank angle corresponding to the top dead center, and instructs spark discharge of an ignition plug in response to a pulse signal generated by a non-selected detected portion having the different length located immediately after the crank angle corresponding to the top dead center. Thus, at the beginning of the manual cranking time of an engine, the reverse rotation of the engine can be avoided by igniting immediately after the crank angle corresponding to the top dead center in unstable rotation since the ignition timing has a margin for non-reverse rotation.

Claims 11-6 and 11-8 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Ohira* in view of *Kelly*, in view of *Ono* in view of U.S. Publication No. 2002/0167419 to *Haimeri et al.*

As claim 11 ultimately depends from claim 6, please see applicants' discussion above.

In view of the aforementioned amendments and accompanying remarks, Applicants submit that the claims, as herein amended, are in condition for allowance. Applicants request such action at an early date.

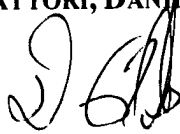
If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

Application No. 10/564,956
Art Unit: 3747

Amendment under 37 C.F.R. §1.116
Attorney Docket No. 053547

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,
WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP

A handwritten signature in black ink, appearing to read 'D. Hubbs', is positioned above the printed name of the attorney.

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